Agricultural Health Study

Farmer Applicator Questionnaire

[CODED MANUAL]



Public reporting burden for this collection of information is estimated to average 60 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintainting the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: PHS Reports Clearance Officer, Rm 721-B, Humphrey Building, 200 Independence Ave., SW, Washington, D.C. 20201, ATTN: PRA; and to Office of Management and Budget, Paperwork Reduction Project (0925-0406), Washington, D.C. 20503.

Please return this questionnaire in the next two weeks in the envelope provided.

Problems or questions? Call 1-800-4AG-STUDY.

Dear Applicator:

We are again asking for your help in carrying out an important scientific study that the University of Iowa Medical Center and Survey Research Associates (Durham, NC) are conducting in cooperation with the National Institutes of Health (NIH) and the Office of Research and Development of the US Environmental Protection Agency (USEPA). The study is being conducted in Iowa and North Carolina and investigates environmental factors, occupation and diet and their effects on an individual's health.

Thank you for filling out the Enrollment Questionnaire. Now we are asking you and your spouse to complete the main study questionnaires. Questions about your lifestyle, pesticide use, work practices, occupational history, medical history, cooking practices, and health will be asked in more detail than on the form you filled out earlier. Your spouse will be asked questions about family health. You are free to skip any question at any point in the form.

The study results will give you information you may find helpful in making decisions for your health and the health of your family. This information will be provided through the cooperative extension service, state and county health departments, articles in trade magazines, and public service announcements on radio and TV. You can request study reports by calling the Agricultural Health Study's toll-free number 1-800-4AG-STUDY.

Your participation is very important to the success of the study. Information you give us will be treated with care and will not be disclosed to anyone but the researchers conducting the study or as required by law. Confidential information like your name and address will be stored in locked files accessible only to study staff. Your name will not be used in any reports or released in any way. The study results will be reported in statistical summary form only.

You may be contacted in the future to take part in related research studies. Your decision to be a part of future studies will also be voluntary.

We need to hear from you within the next two weeks. Please take the time to fill out this questionnaire. The booklet may look long but there may be many pages you can skip. Most people find it takes about an hour to complete. I think you'll find it interesting. Please return the completed form to the Agricultural Health Study Project in the enclosed pre-addressed, postage-paid envelope. Be sure to also include the Spouse and Female and Family Health questionnaires. If you have any questions about the survey, please contact Pat Miller at the Agricultural Health Study at 1-800-4AG-STUDY.

We appreciate your cooperation in this important research project.

Sincerely,

Michael C.R. Alavanja, Di

Project Officer

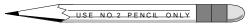
National Institutes of Health

michael CR. alavania

Privacy Act Notification: 42 U.S.C. 285a of the Public Health Service Act authorizes collection of this information. It will be used to evaluate the role of agricultural exposures and other factors in the development of cancer, neurological disease, birth defects and other chronic diseases. All information is voluntary and a decision not to provide all or any part of the requested information will not affect your certification or licensing. The Government may disclose this information to a Congressional Office upon your request, to the Department of Justice in the event of litigation; or to the Government contractors and collaborating researchers who are analyzing the study data.

DIRECTIONS

C Please use a pencil to complete this form.



- C Many of the questions will ask you to estimate amounts or to specify a year. We know that you cannot be exact with many of these. We ask that you estimate as best you can when you are not sure.
- C Be certain to write your answer in the area provided *and* also completely fill the matching ovals. Erase completely if you make any changes.

The following kinds of marks will **NOT** work: $\otimes \oslash \bigcirc \bigcirc$ The following kind of marks will work: $\bigcirc \bigcirc \bigcirc \bigcirc$

C Mark **only one** answer to each question except where you are directed to "Mark all that apply." Do not make any other marks on this form. If you wish to make comments, please write them under the heading "Additional Comments" at the end of the form.

EXAMPLE: To record the response "July 4, 1993:"

Month	Day	Write the	Year
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec	(n) (a) (3) (1) (1) (2) (3) (2) (2) (2) (3) (3) (3) (4) (4) (5) (5) (2) (6) (8) (4) (7) (7) (2) (8) (8) (2) (9) (9) (2)	numbers in boxes. Then fill in the matching ovals below each box.	19 9 3

BEGIN HERE

I. General Information

1. What is today's date?

[qxmonth]	[qxday]	[qxyear]	[a_quexdate]
Month	Day	Year	SAS date
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec	(1) (2) (3) (2) (2) (2) (2) (2) (3) (3) (3) (3) (3) (4) (4) (4) (5) (5) (5) (6) (6) (6) (6) (6) (6) (6) (6) (6) (6	1993199419951996	

 Over your lifetime, how many years Less than 5 years 5-10 years 11-20 years 21-30 years Over 30 years 		[ayfarm]
3. During the last growing season, how n	nany days did you do the following activit	ies?
a. Till the soil (plow, disk, cultivate) [algsact1]	b. Drive combines or other crop harvesters [algsact2]	c. Plant [algsact3]
 Never 1-10 days 11-30 days 31-100 days More than 100 days 	O Never O 1–10 days O 11–30 days O 31–100 days O More than 100 days	 Never 1–5 days 6–25 days 26–50 days More than 50 days
d. Apply natural fertilizer (manure) [algsact4]	e. Apply chemical fertilizer [algsact5]	f. Hand pick crops [algsact6]
 Never 1–5 days 6–25 days 26–50 days More than 50 days 	 Never 1–5 days 6–25 days 26–50 days More than 50 days 	 Never 1–5 days 6–25 days 26–50 days More than 50 days
4. How often do you personally do the following activities?	A. In the Summer (that is, the growing season)	B. In the Winter (that is, the non-growing season)
a. Milk cows	[asmact1] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)	[awnact1] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)
b. Drive trucks	[asmact2] ○ Never or less than once a month ○ Monthly (1–3 times a month) ○ Weekly (1–5 times a week) ○ Daily (6–7 times a week)	[awnact2] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)
c. Drive diesel tractors	[asmact3] ○ Never or less than once a month ○ Monthly (1–3 times a month) ○ Weekly (1–5 times a week) ○ Daily (6–7 times a week)	[awnact3] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)
d. Drive gasoline tractors	[asmact4] ○ Never or less than once a month ○ Monthly (1–3 times a month) ○ Weekly (1–5 times a week) ○ Daily (6–7 times a week)	[awnact4] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)
e. Weld	[asmact5] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)	[awnact5] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)

4. How often do you personally do the following activities?	A. In the Summer (that is, the growing season)	B. In the Winter (that is, the non-growing season)
f. Repair engines	[asmact6] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week)	[awnact6] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week)
g. Grind metal	O Daily (6–7 times a week) [asmact7] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)	O Daily (6–7 times a week) [awnact7] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)
h. Grind animal feed	[asmact8] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)	[awnact8] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)
i. Use gasoline for cleaning hands or equipment	[asmact9] ○ Never or less than once a month ○ Monthly (1–3 times a month) ○ Weekly (1–5 times a week) ○ Daily (6–7 times a week)	[awnact9] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)
j. Use other solvents (like paint stripper, turpentine, benzene) for cleaning	[asmact10] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)	[awnact10] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)
k. Paint	[asmact11] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)	[awnact11] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)
Perform procedures where you may come in contact with animal blood (castration, dehorning, birthing, etc.)	[asmact12] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)	[awnact12] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)

5.	Did a veterinarian ever tell you that any of the livestock on this farm, or any farm you may have	worked on, had
	leukemia or lymphoma caused by a virus?	ľaleukdry

\circ	No	[GO TO	QUESTION	81

O Yes

	1	A.	B. IF YES, How many years ago did this first happen?			happen?	
LIVESTOCK	No	Yes	////	Last 5 years	6–10 years	11–20 years	21 or more years
a. Dairy cattle [aleukst1]	0	0	[aleukyr1]	0	0	0	0
b. Beef cattle [aleukst2]	0	0	[aleukyr2]	0	0	0	0
c. Chickens [aleukst3]	0	0	[aleukyr3]	0	0	0	0

6.	How many different times has vir	l leukemia or lymphoma been diagnosed on the farm?
	a. Dairy or Beef Cattle	b. Chickens
	[altimcat]	[altimchc]
	O Never	O Never
	O Once	O Once
	O Twice	O Twice
	O Three times	O Three times
	O Four times	O Four times
	O Five or more times	O Five or more times
	O Don't know	O Don't know
7.	In total, how many animals have O None	oeen diagnosed with viral leukemia or lymphoma (nclude cattle and chickens)?
	O 1–19	[atotinf
	\bigcirc 1–19 \bigcirc 20–49	
	O 50–99	
	O 100–199	
	O 200 or more	
	O Don't know	
8.	How many years have you been t (aflatoxin B)?	old that all or part ofthe crops grown or stored on your farm had aspergillus
	O Never	[aasperg
	O 1 year O 2 years	
	O 3 or more years	
	O Don't know	
	O Don't know	
9.	How many years have you been u	nable to harvest or sel all or part of the crops grown or stored on your farm
	because of molds other than asper	gillus? [amolds
	O Never	
	O 1 year	
	O 2 years	
	O 3 or more years	
	O Don't know	
II.	Pesticide Use Inform	ation
	resticide use illioitii	ation
10.	What application methods do you	generally use when you apply herbicides? (Mark all that apply.)
	O Don't usually apply herbicides	[ahrbmth1]
	O Airblast	[ahrbmth2]
	O Boom on tractor, truck, or trailer	[ahrbmth3]
	O Hand spray gun	[ahrbmth4]
	O Backpack sprayer	[ahrbmth5]
	O Aerial (aircraft application)	[ahrbmth6]
	O In furrow or banded	[ahrbmth7]
	O Mist blower/fogger	[ahrbmth8]
	O Other	[ahrbmth9]

DO NOT WRITE OUTSIDE BOX

11.	What application methods do you genera		15.	When you personally mix herbicides, wh	
	when you apply crop insecticides? (Mark	all that		additives do you generally use? (Mark ala	l that
	apply.)			apply.)	
	O Don't usually apply crop insecticides	[ainsmth1]		O Don't mix herbicides	[ahrbadd1]
	O Airblast	[ainsmth2]		O Don't usually use additives	[ahrbadd2]
	O Boom on tractor, truck, or trailer	[ainsmth3]		O Solvents (like diesel fuel)	[ahrbadd3]
	O Hand spray gun	[ainsmth4]		O Fertilizer	[ahrbadd4]
	O Backpack sprayer	[ainsmth5]		O Other pesticides	[ahrbadd5]
	O Aerial (aircraft application)	[ainsmth6]		O Surfactants, crop oil concentrates	[ahrbadd6]
	O In furrow or banded	[ainsmth7]			_
	O Mist blower/fogger	[ainsmth8]	16.	When you personally mix crop insecticid	
	O Other	[ainsmth9]		additives do you generally use? (Mark ala	l that
	DO NOT WRITE OUTSIDE BOX	K		apply.)O Don't mix crop insecticides	[ainsadd1]
				O Don't usually use additives	[ainsadd2]
12.	What application methods do you genera			O Solvents (like diesel fuel)	[ainsadd3]
	when you apply poultry/livestock/animal			O Fertilizer	[ainsadd4]
	confinement area insecticides? (Mark all	that apply.)		O Other pesticides	[ainsadd5]
				O Surfactants, crop oil concentrates	[ainsadd6]
	O Don't usually apply poultry/livestock/anim	mal		Surructunus, crop on concentrates	[amounto]
	confinement area insecticides	[acaimt1]	17.	When you personally mix animal/livestoo	k/animal
	O Ear tag	[acaimt2]		confinement area insecticides, what addit	
	O Hang pest strips in barn	[acaimt3]		you generally use? (Mark all that apply.)	2,05 020
	O Dust animals	[acaimt4]		jou generally use. (Mark an man approx.)	
	O Fog/mist animals	[acaimt5]		O Don't mix animal/livestock/animal confin	ement area
	O Dip animals in pesticide solution	[acaimt6]		insecticides	[acaiadd1]
	O Spray animals	[acaimt7]		O Don't usually use additives	[acaiadd2]
	O Spray buildings	[acaimt8]		O Solvents (like diesel fuel)	[acaiadd3]
	O Rope wick	[acaimt9]		O Other pesticides	[acaiadd4]
	O Pour on animals	[acaimt10]		o outer pesuences	[acaimac i]
	O Other	[acaimt11]	18.	When you personally mix fungicides, who	at
	DO NOT WINTE OUTGINE DO	7		additives do you generally use? (Mark all	
	DO NOT WRITE OUTSIDE BOX	Λ		apply.)	
13.	What application methods do you genera	ılly use		O Don't mix fungicides	[afungad1]
	when you apply fungicides? (Mark all the			O Don't usually use additives	[afungad2]
	Jan HI Jan Banana (Tr V		O Solvents (like diesel fuel)	[afungad3]
	O Don't usually apply fungicides	[afungmt1]		O Fertilizer	[afungad4]
	O Airblast	[afungmt2]		O Other pesticides	[afungad5]
	O Boom on tractor, truck, or trailer	[afungmt3]		O Surfactants, crop oil concentrates	[afungad6]
	O Hand spray gun	[afungmt4]			
	O Backpack sprayer	[afungmt5]			
	O Aerial (aircraft application)	[afungmt6]			
	O Pre-applied to seed	[afungmt7]			
	O Mist blower/fogger	[afungmt8]			
	O Other	[afungmt9]			
	DO NOT WRITE OUTSIDE BOX	X .			
14.	What application methods do you genera	ılly use			
	when you apply fumigants? (Mark all the	•			
	O Don't usually apply fumigants	[afumgmt1]			
	O Gas canister	[afumgmt2]			
	O Row fumigation	[afumgmt3]			
	O Other	[afumgmt4]			
		[c.c.ngint4]			
	DO NOT WRITE OUTSIDE BOX	K			

For the following pesticides, first answer the question in Column A. If you answered "Yes" then answer the questions in Columns B, C and D for that pesticide. If you answered "No" then go on to the next pesticide. Be sure to answer Column A ("Yes" or "No") **for each pesticide** listed. This list includes some pesticides that are no longer on the market. Please answer about your use of these pesticides in past operations.

Name of Pesticide	A. Have you ever personally mixed or applied this pesticide?	B. How many years did you personally mix or apply this pesticide?	C. In an average year when you personally used this pesticide, how many days did you use it?	D. When did you first personally use this pesticide?
a. Classic or other chlorimuron ethyl products	les used to kill weeds [a_herbicide_cd4] O No O Yes O	[a_herbicide_yr4] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_herbicide_day4] O Less than 5 days O 5–9 days O 10–19 days O 20–39 days O 40–59 days O 60–150 days O More than 150 days	[a_herbicide_fu4] O Before 1960 O In the 1960s O In the 1970s O In the 1980s O In the 1990s O Mark here if you used this pesticide last year [a_herbicide_ls4]
b. Lexone, Sencor or other <i>metribuzin</i> products	[a_herbicide_cd8] O No O Yes O	[a_herbicide_yr8] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_herbicide_day8] ○ Less than 5 days ○ 5-9 days ○ 10-19 days ○ 20-39 days ○ 40-59 days ○ 60-150 days ○ More than 150 days	[a_herbicide_fu8] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ ○ Mark here if you used this pesticide last year [a_herbicide_ls8]
c. Paraquat	[a_herbicide_cd9] O No O Yes O	[a_herbicide_yr9] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_herbicide_day9] O Less than 5 days O 5–9 days O 10–19 days O 20–39 days O 40–59 days O 60–150 days O More than 150 days	[a_herbicide_fu9] O Before 1960 O In the 1960s O In the 1970s O In the 1980s O In the 1990s O Mark here if you used this pesticide last year [a_herbicide_ls9]
d. Petroleum oil/ petroleum distillate	[a_herbicide_cd10] O No O Yes O	[a_herbicide_yr10] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_herbicide_day10] O Less than 5 days O 5–9 days O 10–19 days O 20–39 days O 40–59 days O 60–150 days O More than 150 days	[a_herbicide_fu10] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ ○ Mark here if you used this pesticide last year [a_herbicide_ls10]

Name of Pesticide	A. Have you ever personally mixed or applied this pesticide?	B. How many years did you personally mix or apply this pesticide?	C. In an average year when you personally used this pesticide, how many days did you use it?	D. When did you first personally use this pesticide?
e. Prowl or other <i>pendimethalin</i> products	[a_herbicide_cd11] O No O Yes O	[a_herbicide_yr11] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_herbicide_day11]	[a_herbicide_fu11] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ Mark here if you used this pesticide last year [a_herbicide_ls11]
f. Sutan, Genate or other <i>butylate</i> products	[a_herbicide_cd15] O No O Yes O	[a_herbicide_yr15] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_herbicide_day15] O Less than 5 days O 5–9 days O 10–19 days O 20–39 days O 40–59 days O 60–150 days O More than 150 days	[a_herbicide_fu15] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ O ○ Mark here if you used this pesticide last year [a_herbicide_ls15]
g. Silvex or other 2,4,5 TP products	[a_herbicide_cd14] O No O Yes O	[a_herbicide_yr14] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_herbicide_day14] ○ Less than 5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days ○ More than 150 days	[a_herbicide_fu14]
h. 2,4,5 T	[a_herbicide_cd18] O No O Yes O	[a_herbicide_yr18] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_herbicide_day18] ○ Less than 5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days ○ More than 150 days	[a_herbicide_fu18] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s

	Α.	В.	С.	D.
	Have you ever	How many years did	In an average year when	When did you <i>first</i>
Name of Pesticide	personally mixed	you personally mix or	you personally used this	personally use this
	or applied this	apply this pesticide?	pesticide, how many	pesticide?
, , , , , , , , , , , , , , , , , , , 	pesticide?		days did you use it?	
<u>////////</u>	//////	///////		
20. Crop/Livestock/Ani	imal Confinement A	rea Insecticides		
a. Forlin, Gamaphex or	[a_insecticide_cd6]	[a_insecticide_yr6]	[a_insecticide_day6]	[a_insecticide_fu6]
other lindane products	O No O Yes ^O	O 1 year or less	O Less than 5 days	O Before 1960
	0	O 2–5 years	O 5–9 days	O In the 1960s
		○ 6–10 years ○ 11–20 years	○ 10–19 days ○ 20–39 days	○ In the 1970s ○ In the 1980s
		O More than 20 years	○ 40–59 days	O In the 1990s
			○ 60–150 days	0
			O More than 150 days	O Madahara if
				O Mark here if you used this pesticide last year
				[a_insecticide_ls6]
b. Malathion	[a_insecticide_cd9]	[a_insecticide_yr9]	[a_insecticide_day9]	[a_insecticide_fu9]
	O No O Yes ^O	O 1 year or less	O Less than 5 days	O Before 1960
	0	O 2–5 years	○ 5–9 days	O In the 1960s
		○ 6–10 years ○ 11–20 years	○ 10–19 days ○ 20–39 days	○ In the 1970s ○ In the 1980s
		O More than 20 years	O 40–59 days	O In the 1990s O In the 1990s
		O More than 20 years	O 60–150 days	0
			O More than 150 days	OM 11 'C 1
				O Mark here if you used this pesticide last year
				[a_insecticide_ls9]
c. Parathion (ethyl or	[a_insecticide_cd10]	[a_insecticide_yr10]	[a_insecticide_day10]	[a_insecticide_fu10]
methyl)	○ No ○ Yes ^O	O 1 year or less	O Less than 5 days	O Before 1960
	0	O 2–5 years	○ 5–9 days	O In the 1960s
		○ 6–10 years ○ 11–20 years	○ 10–19 days ○ 20–39 days	○ In the 1970s○ In the 1980s
		O More than 20 years	O 40–59 days	○ In the 1980s ○ In the 1990s
		O More than 20 years	O 60–150 days	0
			O More than 150 days	
				O Mark here if you used this pesticide last year
				[a_insecticide_ls10]
d. Sevin, Carbamine or	[a_insecticide_cd11]	[a_insecticide_yr11]	[a_insecticide_day11]	[a_insecticide_fu11]
other carbaryl products	○ No ○ Yes ^O	O 1 year or less	O Less than 5 days	O Before 1960
	0	O 2–5 years	○ 5–9 days	O In the 1960s
		○ 6–10 years ○ 11–20 years	○ 10–19 days ○ 20–39 days	○ In the 1970s ○ In the 1980s
		O More than 20 years	○ 40–59 days	O In the 1990s
		O More than 20 years	O 60–150 days	0
			O More than 150 days	OM 11 '6 1
				O Mark here if you used this pesticide last year
				[a_insecticide_ls11]
e. Spectricide, Dianon or	[a_insecticide_cd12]	[a_insecticide_yr12]	[a_insecticide_day12]	[a_insecticide_fu12]
other <i>diazinon</i> products	○ No ○ Yes O	O 1 year or less	O Less than 5 days	O Before 1960
	0	O 2–5 years	O 5–9 days	O In the 1960s
		○ 6–10 years	○ 10–19 days ○ 20–39 days	O In the 1970s
		○ 11–20 years ○ More than 20 years	○ 20–39 days ○ 40–59 days	○ In the 1980s ○ In the 1990s
		C 171010 than 20 years	○ 60–150 days	0
			O More than 150 days	O Madala 16
				O Mark here if you used this pesticide last year
				[a_insecticide_ls12]

Name of Pesticide	A. Have you ever personally mixed or applied this pesticide?	B. How many years did you personally mix or apply this pesticide?	C. In an average year when you personally used this pesticide, how many days did you use it?	D. When did you first personally use this pesticide?
f. Temik or other <i>aldicarb</i> products	[a_insecticide_cd13] O No O Yes O	[a_insecticide_yr13] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_insecticide_day13] Less than 5 days 5–9 days 10–19 days 20–39 days 40–59 days 60–150 days More than 150 days	[a_insecticide_fu13] O Before 1960 O In the 1960s O In the 1970s O In the 1980s O In the 1990s O Mark here if you used this pesticide last year [a_insecticide_ls13]
g. Thimet, Rampart or other <i>phorate</i> products	[a_insecticide_cd14] O No O Yes O	[a_insecticide_yr14] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_insecticide_day14] O Less than 5 days O 5–9 days O 10–19 days O 20–39 days O 40–59 days O 60–150 days O More than 150 days	[a_insecticide_fu14] O Before 1960 O In the 1960s O In the 1970s O In the 1980s O In the 1990s O Mark here if you used this pesticide last year [a_insecticide_ls14]
h. Aldrin	[a_insecticide_cd15] O No O Yes O	[a_insecticide_yr15] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_insecticide_day15] O Less than 5 days O 5–9 days O 10–19 days O 20–39 days O 40–59 days O 60–150 days O More than 150 days	[a_insecticide_fu15] O Before 1960 O In the 1960s O In the 1970s O In the 1980s O In the 1990s
i. Chlordane	[a_insecticide_cd16] O No O Yes O	[a_insecticide_yr16] ○ 1 year or less ○ 2–5 years ○ 6–10 years ○ 11–20 years ○ More than 20 years	[a_insecticide_day16] ○ Less than 5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days ○ More than 150 days	[a_insecticide_fu16] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s
j. Dieldrin	[a_insecticide_cd17] O No O Yes O	[a_insecticide_yr17] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_insecticide_day17] ○ Less than 5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days ○ More than 150 days	[a_insecticide_fu17] O Before 1960 O In the 1960s O In the 1970s O In the 1980s O In the 1990s
k. DDT	[a_insecticide_cd18] O No O Yes O	[a_insecticide_yr18] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_insecticide_day18] O Less than 5 days O 5–9 days O 10–19 days O 20–39 days O 40–59 days O 60–150 days O More than 150 days	[a_insecticide_fu18] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s

Name of Pesticide	A. Have you ever personally mixed or applied this pesticide?	B. How many years did you personally mix or apply this pesticide?	C. In an average year when you personally used this pesticide, how many days did you use it?	D. When did you first personally use this pesticide?
		///////		
1. Heptachlor	[a_insecticide_cd19] O No O Yes O	[a_insecticide_yr19] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_insecticide_day19] ○ Less than 5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days ○ More than 150 days	[a_insecticide_fu19] O Before 1960 O In the 1960s O In the 1970s O In the 1980s O In the 1990s
m. Toxaphene	[a_insecticide_cd20] O No O Yes O	[a_insecticide_yr20] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_insecticide_day20] ○ Less than 5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days ○ More than 150 days	[a_insecticide_fu20] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s
21. Fungicides (chemica	als for controlling dise	ease on crops and seed;	may be pre-applied to see	ed)
a. Benlate, Tersan or other <i>benomyl</i> products	[a_fungicide_cd1] O No O Yes O	[a_fungicide_yr1] ○ Already applied to seed ○ 1 year or less ○ 2-5 years ○ 6-10 years ○ 11-20 years ○ More than 20 years	[a_fungicide_day1] ○ Pre-applied to seed ○ None ○ 1 day ○ 2-5 days ○ 5-9 days ○ 10-19 days ○ 20-39 days ○ 40-59 days ○ 60-150 days ○ More than 150 days	[a_fungicide_fu1] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ Mark here if you used this pesticide last year [a_fungicide_ls1]
b. Manex, Manzate, Dithane Z-78 or other maneb or mancozeb products	[a_fungicide_cd4] ○ No ○ Yes ○	[a_fungicide_yr4] ○ Already applied to seed ○ 1 year or less ○ 2-5 years ○ 6-10 years ○ 11-20 years ○ More than 20 years	[a_fungicide_day4] O Pre-applied to seed None 1 day 2-5 days 5-9 days 10-19 days 20-39 days 40-59 days 60-150 days More than 150 days	[a_fungicide_fu4] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ Mark here if you used this pesticide last year [a_fungicide_ls4]
c. Ridomil, Subdue or other <i>metalaxyl</i> products	[a_fungicide_cd5] O No O Yes O	[a_fungicide_yr5] ○ Already applied to seed ○ 1 year or less ○ 2–5 years ○ 6–10 years ○ 11–20 years ○ More than 20 years	[a_fungicide_day5] O Pre-applied to seed None 1 day 2–5 days 5–9 days 10–19 days 20–39 days 40–59 days 60–150 days	[a_fungicide_fu5] O Before 1960 O In the 1960s O In the 1970s O In the 1980s O In the 1990s O Mark here if you used this pesticide last year [a_fungicide_ls5]

Name of Pesticide	A. Have you ever personally mixed or applied this pesticide?	B. How many years did you personally mix or apply this pesticide?	C. In an average year when you personally used this pesticide, how many days did you use it?	D. When did you first personally use this pesticide?
	//////	////////		
d. Zirex, Corozate or other <i>ziram</i> products	[a_fungicide_cd6] O No O Yes O	[a_fungicide_yr6] ○ Already applied to seed ○ 1 year or less ○ 2–5 years ○ 6–10 years ○ 11–20 years ○ More than 20 years	[a_fungicide_day6] ○ Pre-applied to seed ○ None ○ 1 day ○ 2–5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days ○ More than 150 days	[a_fungicide_fu6] O Before 1960 O In the 1960s O In the 1970s O In the 1980s O In the 1990s O Mark here if you used this pesticide last year [a_fungicide_ls6]
22. Fumigants (gases of	r liquids that turn to g	as when released; used	l in enclosed areas or to t	reat soil)
a. Phostoxin, Gastoxin or other <i>aluminum phosphide</i> products	[a_fumigant_cd2] O No O Yes O	[a_fumigant_yr2] ○ 1 year or less ○ 2–5 years ○ 6–10 years ○ 11–20 years ○ More than 20 years	[a_fumigant_day2] ○ 1 day ○ 2–5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days ○ More than 150 days	[a_fumigant_fu2] O Before 1960 O In the 1960s O In the 1970s O In the 1980s O In the 1990s O Mark here if you used this pesticide last year [a_fumigant_ls2]
b. Carbon tetrachloride/ carbon disulfide (80/20 mix)	[a_fumigant_cd3] O No O Yes O	[a_fumigant_yr3] ○ 1 year or less ○ 2–5 years ○ 6–10 years ○ 11–20 years ○ More than 20 years	[a_fumigant_day3] ○ 1 day ○ 2–5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days ○ More than 150 days	[a_fumigant_fu3] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s
c. EDB, E-D-Bee, Bromofume or other ethylene dibromide products	[a_fumigant_cd4] O No O Yes O	[a_fumigant_yr4] ○ 1 year or less ○ 2–5 years ○ 6–10 years ○ 11–20 years ○ More than 20 years	[a_fumigant_day4] ○ 1 day ○ 2–5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days	[a_fumigant_fu4] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s

23. In your lifetime, other than those listed above, have you personally used any other pesticides frequently (either now or in past years)? O No [GO TO QUESTION 25] O Yes [CONTINUE] 24. What other pesticides have you used frequently (either now or in the past)? (Mark all that you have used.) A. Crop Insecticides O Aastar (flucythrinate + phorate) O Marlate (methoxychlor) [aocins14] [aocins1] O Broot (trimethacarb) O Monitor, Swipe, Tahmabon, Acephate-Met[aocins15] [aocins2] O Cygon 400 (dimethoate) [aocins3] (methamidophos) O Mocap (ethoprop) O Delnav (dioxathion) [aocins16] [aocins4] O Noxfish (rotenone) O Dipel (bacillus thuringiensis) [aocins5] [aocins17] Orthene (acephate) O Di-syston (disulfoton) [aocins6] [aocins18] O Etrolene, Korlan, Ronnel (fenchlorphos) [aocins7] O Phosdrin (mevinphos) [aocins19] O Force (tefluthrin) O Pydrin (fenvalerate) [aocins20] [aocins8] 0 Ruelene (crufomate) O Guthion (azinphos methyl) [aocins9] [aocins21] O Imidan (phosmet) 0 Thiodan (endosulfan) [aocins10] [aocins22] O Totalene, Tugon (trichlorfon) O Kelthane (dicofol) [aocins11] [aocins23] O Lannate (methomyl) O Vydate (oxanyl) [aocins24] [aocins12] O Lead Arsenate [aocins13] **B.** Livestock/Poultry Insecticides O Stimukil (methomyl) O Baytex, Lysoff, Tiguvon (fenthion) [aolins1] [aolins7] O Black Leaf 40 (nicotine) \circ Neguvon, Tugon (trichlorfon) [aolins8] [aolins2] O Prolate (phosmet) O Bo-Ana, Warbex (famphur) [aolins3] [aolins9] O Rabon, Gradona (tetrachlorvinphos) O Bux (bufencarb) [aolins4] [aolins10] 0 Rotenone (rotenoneapry) [aolins11] O Ivomec [aolins5] O Tackic O Korlan, Trolene (ronnel) [aolins12] [aolins6] C. Herbicides O Ally (metsulfuran methyl) O Hoelon (diclofop-methyl) [aohrb1] [aohrb18] O Inorganic Arsenic O Amiben (chloramben) [aohrb2] [aohrb19] O Lorox (linuron) O Basagran (bentazone) [aohrb3] [aohrb20] O Bicep (atrazine + metolachlor) [aohrb4] \circ Marksman (dicamba + atrazine) [aohrb21] 0 O Blazer, Storm, Galaxy (acifluorfen Paarlan (isopropalin) [aohrb22] O Princep (simazine) sodium) [aohrb5] [aohrb23] O Bronco (alachlor + isopropylamine 0 Organic Arsenic [aohrb24] salt of glyphosphate) 0 [aohrb6] Poast (sethoxydim) [aohrb25] O Bullet (alachlor + atrazine) [aohrb7] \bigcirc Ramrod (propachlor) [aohrb26] O Buctril (bromoxynil) [aohrb8] \bigcirc Scepter (imazaguin) [aohrb27] O Canopy (metribuzin + chlorimuron ethyl) Sonalan (ethalfluralin) [aohrb9] [aohrb28] O Command (clomazone) [aohrb10] 0 Squadron (pendimethalin + imazaquin) [aohrb29] O Conquest (cyanazine + atrazine) [aohrb11] 0 Surflan (oryzalin) [aohrb30] O Cotoran (fluometuron) 0 [aohrb12] Sutazine (atrazine + butylate) [aohrb31] O Devrinol (napropamide) 0 [aohrb13] Tandem (tridiphene) [aohrb32] O Enide (diphenamid) [aohrb14] \circ Vernam (vernolate) [aohrb33] O Eradicane, Eptam (EPTC) [aohrb15] O Zorial (norflurozon) [aohrb34] O Fusilade (fluazifop-butyl) [aohrb16] O Harmony, Pinnacle (thifensulfuron methyl) [aohrb17] O Telone, Telone II, D-D (dichloropropene) [aofumg6] **D. Fumigants** 0 Tetrafume [aofumg7] O Basamid (dazomet) [aofumg1] Vapam (metam-sodium) [aofumg8] O Bin Spray [aofumg2] O Vorlex (methyl isothiocyanate) [aofumg9] O Chlor-O-Pic, Dolochlor (chloropicrin) [aofumg3] O Cyanamid, Cyanogas (calcium cyanide) [aofumg4] O DBCP (dibromochloropropane) [aofumg5]

I	E. Fungicides			
	O Arbotect (triabendazole)	[aofung1]	O Nova, Rally, Systhane (myclobutanil)	[aofung16]
	O Banner, Tilt, 3.6 EC (propiconazole)	[aofung2]	O Phaltan (folpet)	[aofung17]
	O Bayleton (triadimefon)	[aofung3]	O Pipron (piperalin)	[aofung18]
	O Baytan 30 (triadimenol)	[aofung4]	O Polyram, Carbatene (metiram)	[aofung19]
	O Haipen, Sanspor (captafol)	[aofung5]	O Rovral (iprodione)	[aofung20]
	O Carbamate (ferbam)	[aofung6]	O Rubigan (fenarimol)	[aofung21]
	O Copper-Count N (copper ammonia carbonate)	[aofung7]	O Sulfur	[aofung22]
	O Curalan, Vorlan (vinclozolin)	[aofung8]	O Terraclor (PCNB)	[aofung23]
	O Cyprex (dodine)	[aofung9]	O Thiocarabamates	[aofung24]
	O Dyrene (anilazine)	[aofung10]	O Topsin-M (triophanate-methyl)	[aofung25]
	O Evershield, Aatack (thiram)	[aofung11]	O Tribasic (copper sulfate)	[aofung26]
	O Funginex (triforine)	[aofung12]	O Triacetane (triphenyltin acetate)	[aofung27]
	O Kocide 101, Kocide 404 (cupric hydroxide)	[aofung13]	O Truban (etridiazole)	[aofung28]
	O Mertect (thiabendazole)	[aofung14]	O Vitavax (carboxin)	[aofung29]
	Milban (dodemorph acetate)	[aofung15]	Vitavax (Carboxiii)	[aoiung29]
h	Have you ever had an incident or experience whe high personal exposure? No [GO TO QUESTION 30] O Yes	me using <i>any</i> t	ype of <i>FESTICIDE</i> which caused you <i>un</i>	[chghexpo]
	What was the name of the product you were using	ng uuring you	mgnest enposure metaent or enperioner	7
	(Pesticides listed in questions 10 to 24 may assist	you in rememb	ering or spelling, if needed.)	
27 1	•		, , , , , , , , , , , , , , , , , , ,	f
	During which decade did this pesticide incident	occur?		[aoccuryr]
	O the 1990s			
	O the 1980s			
	O the 1970s			
(O the 1960s			
(the 1950s			
(O the 1940s			
28. V	Which part(s) of your body were exposed to the	-		
1	Head and/or face	[abodypt1]		
	Arms	[abodypt2]		
(Hands	[abodypt3]		
(Chest/back/abdomen	[abodypt4]		
(Groin area	[abodypt5]		
() Legs	[abodypt6]		
() Feet	[abodypt7]		
(Lungs and respiratory tract (from breathing fumes	abodypt8		
(Digestive tract (from ingesting/swallowing)	[abodypt9]	l	
	How soon after this pesticide incident were you a	able to wash (with soap and water)	
	our exposed body part(s)?			[awhnwash]
(Less than 30 minutes			
(30–59 minutes			
(1–3 hours			
() 4–6 hours			
(7–9 hours			
(More than 9 hours after the incident			

III. Work Practices

30. Were you applying pesticides 10 years ago?

[aus10ago]

O No [Complete Column A Only]



O Yes [Be sure to answer for *both* current work practices (Column A), and for 10 years ago (Column B).]



QUESTION	A. NOW (Past 12 Months)	B. 10 YEARS AGO
31. What types of pesticides do you generally mix or apply using protective equipment? (Mark all that apply.)	 ○ Insecticides ○ Herbicides ○ Fungicides ○ Fumigants ○ None [anpeqps3] [anpeqps4] (anpeqps5] 	O Herbicides [aapeqps2] O Fungicides [aapeqps3] O Fumigants [aapeqps4]
32. What types of protective equipment do you usually use when you personally handle pesticides? (Mark all that apply.)	O Never use protective equipment Cartridge respirator, gas mask Dust mask Full face shield Hat Goggles Chemically resistant gloves (like neoprene or nitrile gloves) Fabric/leather gloves Apron Chemically resistant boots Cloth coveralls (complete suit) Disposable outer clothing (like Tyvek®)	O Cartridge respirator, gas mask Dust mask Full face shield Hat Goggles Chemically resistant gloves Fabric/leather gloves Apron Chemically resistant boots Cloth coveralls (complete suit) Capreq2 [aapreq4] [aapreq4]
33. After mixing or applying pesticides, when do you usually change into clean work clothes?	[anchclot] O Right away O At lunch O At the end of that work day O At the end of the next work day O Later in the week O Always use disposable outer clothing	[aachclot] O Right away O At lunch O At the end of that work day O At the end of the next work day O Later in the week O Always use disposable outer clothing
34. Do you usually wear regular (prescription) eye glasses or sunglasses while mixing or applying pesticides? (Does not include goggles.)	○ No ○ Yes	[aaglass] O No O Yes
35. If you spill a small amount of pesticide on your clothes early in the day, when would you usually change clothes?	[anspilch] ○ Right away ○ Change at lunch ○ At the end of that work day ○ At the end of the next work day ○ Later in the week ○ Always use disposable outer clothing	[aaspilch] O Right away O Change at lunch O At the end of that work day O At the end of the next work day O Later in the week O Always use disposable outer clothing
36. When mixing or applying pesticides, how long do you usually work with the same pair of gloves before exchanging them for a new set?	[anchglov] ○ Don't wear gloves ○ Change each time ○ Change at least once per month ○ Change 1 to 4 times per season ○ Generally don't change gloves until they are worn out	[aachglov] ○ Don't wear gloves ○ Change each time ○ Change at least once per month ○ Change 1 to 4 times per season ○ Generally don't change gloves until they are worn out

QUESTION	A. NOW (Past 12 Months)	B. 10 YEARS AGO
37. In your household, how are clothes usually washed after they have been worn when mixing or applying pesticides?	[anwshclo] O Always wear disposable clothing (like Tyvek®) O Mixed with family wash O Soaked separately then mixed with family wash	O Always wear disposable clothing (like Tyvek®) O Mixed with family wash OSoaked separately then mixed with family wash
	O Washed separately in family machine O Sent out or washed in machine used only for this purpose	O Washed separately in family machine O Sent out or washed in machine used only for this purpose
38. When mixing or applying pesticides, what parts of your body usually come in contact with the pesticide? (Mark all that apply.)	 No parts of my body Hands Arms Legs Face Body [antchbd3] [antchbd4] [antchbd4] [antchbd5] [antchbd5] 	○ Hands [aatchbd2] ○ Arms [aatchbd3] ○ Legs [aatchbd4] ○ Face [aatchbd5]
39. If you finish mixing or applying pesticides in the morning, when do you usually wash yourself? (Mark all that apply.)	O Hands/arms only right away Complete bath/shower right away Complete bath/shower at lunch Hands/arms only at end of day Complete bath/shower at end of day of day [anwhnwa4] [anwhnwa4] [anwhnwa5]	 Complete bath/shower right away Complete bath/shower at lunch [aawhnwa3] Hands/arms only at end of day [aawhnwa4]
	O Other [anwhnwa6]	O Other [aawhnwa6]
40. After mixing or applying pesticides, where do you usually wash up or shower?	☐ Bathroom in home ☐ Outside shower ☐ Other area outside home	☐ Bathroom in home ☐ Outside shower ☐ Other area outside home
41. Do you use an enclosed system, such as lock and load, for mixing and transferring pesticide concentrates?	○ Yes ○ No ○ Don't know	☐ [aaenclo] ☐ Yes ☐ No ☐ Don't know
42. How is the pesticide applying equipment generally washed at the end of the application? (Mark all that apply.)	O Don't wash [anpeqwa1] O Clean nozzle [anpeqwa2] O Rinse tank [anpeqwa3] O Hose down sprayer [anpeqwa4] O Hose down tractor [anpeqwa5] O Don't know [anpeqwa6]	 ○ Clean nozzle ○ Rinse tank ○ Hose down sprayer ○ Hose down tractor [aapeqwa4] [aapeqwa5]
43. Does the tractor you usually use now for spraying pesticides have an enclosed cab?	☐ No ☐ Yes ☐ Don't use tractor	
44. Does the primary tractor you use during pesticide application have a cab with a charcoal filter?	○ No ○ Yes ○ Primary tractor doesn't have cab	
45. Are agricultural or commercial pesticides ever stored (even temporarily) in your home? (Mark all that apply.)	O Yes, in home [anstohm1] O Yes, in basement [anstohm2] O Yes, in garage [anstohm3] O Yes, in attached outbuilding or shed O No [anstohm5]	O Yes, in home [aastohm1] O Yes, in basement [aastohm2] O Yes, in garage [aastohm3] O Yes, in attached outbuilding or shed
46. Do YOU usually repair your own spraying or mixing equipment?		

QUESTION	A. NOW (Past 12 Months)	B. 10 YEARS AGO
47. How far is your home from the nearest area where pesticides are <i>mixed</i> ?	☐ No pesticides mixed on farm ☐ Less than 50 yards ☐ 50–100 yards ☐ More than 100 yards	☐ [aapmxdis] ☐ No pesticides mixed on farm ☐ Less than 50 yards ☐ 50–100 yards ☐ More than 100 yards
48. How far is your home from the nearest field or orchard where pesticides are <i>applied?</i>	[anpapdis] Less than 100 yards 100–199 yards 200–299 yards 300 yards or more	[aapapdis] Less than 100 yards 100–199 yards 200–299 yards 300 yards or more
49. How far is your drinking water well from the nearest area where pesticides are mixed?	☐ No pesticides mixed on farm ☐ Less 50 yards ☐ 51–100 yards ☐ More than 100 yards ☐ Don't have private well	☐ No pesticides mixed on farm ☐ Less 50 yards ☐ 51–100 yards ☐ More than 100 yards ☐ Don't have private well
50. During a typical day in the growing season, about how many hours per day do you spend lifting or carrying heavy objects (for example, hay bales, logs, fertilizer or feed bags)?	[ancarry] None Less than 1 hour 1-2 hours 3-5 hours 6-10 hours More than 10 hours	[aacarry] O None O Less than 1 hour O 1–2 hours O 3–5 hours O 6–10 hours O More than 10 hours

Now go back and make sure you have completed both columns A *and* B if you were using pesticides 10 years ago.

IV. Occupational Information

DO NOT WRITE OUTSIDE BOX

51.		you <i>ever</i> have a job off a No [GO TO QUESTION :		m?					[ajoboff]
52.	For	the non-farm job you he	eld tl	ne longest, what was you	ır jo	b?			
		DO NOT WRITE OUTSIDE	E BO	<u> </u>					
53	Wh	at industry was this job i	in? (For evample:Ruildina/ho	mo c	construction trucking a	ain :	millina restaurant	f)
	***	at mastry was this job.		or example. Buttaing/no	me e	onstruction, trucking, gr		mung, residuran	,
		DO NOT WRITE OUTSIDE	ЕВО	K					
54.	For	the non-farm job you he	eld tl	ne longest, which of the	follo	wing were you exposed	l to?	(Mark all that app	oly)
0	Pe	sticides [anfexp1]	0	Grain dust [anfexp6]	0	Engine exhaust [anfexp11]	0	Mercury [anfexp16]	
0	So	lvents (other than gasoline) [anfexp2]	0	Wood dust [anfexp7]	0	Lead solder [anfexp12]	0	Cadmium [anfexp17]	
0	Ga	isoline [anfexp3]	0	Cotton dust [anfexp8]	0	Welding fumes [anfexp13]	0	Other metals [anfexp18]	
0	As	bestos [anfexp4]	0	Mineral or mining dust [anfexp9]	0	Electroplating fumes [anfexp14]	0	Pneumatic drills ([anfexp19]	vibrations)
0	X-	ray radiation [anfexp5]	0	Silica/sand dust [anfexp10]	0	Lead [anfexp15]	0	None of these [anfexp20]	
55.	000	w many years did you ha 1 year or less 2–5 years 6–10 years 11–20 years More than 20 years	ve th	is job?					[ajobyrs]
56.	0	en did you usually work Year round Off season only	at th	is job?					[awhnwork]
57.	0	w much time did you wor Half-time or less More than half-time	·k at	this job?					[awrktime]
58.	Did O	y ou mix or apply herbic No	ides	during military operati O Yes	ons?	(For example: Agent of Never in the			[amxinmil]
59.	Aro	e there other exposures no No	ot pr			ou feel we should know these in the space below.)		out?	[aothrexp]

V. Activity and Physical Information

60. On average, how many hours per week d (heart beats rapidly) during your leisure	
a. In the Summer Hours per week [asumexer] None Up to 1 hour 1-2 hours 3-5 hours 6-10 hours More than 10 hours	b. In the Winter Hours per week [awinexer] None Up to 1 hour 1-2 hours 3-5 hours 6-10 hours More than 10 hours
61. What color are your eyes? [aeyecolr]	62. What is/was the natural color of your hair? [ahaircol] O Brown O Black O Red O Blonde 64. How much do you weigh now?
[ahgtft] [ahgtin] Feet Inches	[aweight] Pounds
Write the numbers in	 w the boxes 0 0 0 1 1 1 Then fill in the
65. How would your skin react the first time an hour? O Get a severe sunburn with blisters O Get a painful sunburn, but not blisters O Get a mild sunburn followed by some tann O Become tanned without any sunburn O No visible reaction	each year if you were exposed to strong sunlight for more than [asknreac]
 66. In the growing season when you work in (Mark all that apply.) Sunscreen or sunblock Wear baseball-type cap Wear other kind of hat with brim Almost always wear long-sleeved shirt Don't use any of the above protections 	the sun, what type(s) of sun protection do you usually use? [asunpro1] [asunpro2] [asunpro3] [asunpro4] [asunpro5]

a. Now [anhrsun] O Up to 1 hour O 1–2 hours O 3–5 hours O 6–10 hours O More than 10 hours	O 1-2 O 3-5 O 6-1		our s	urs										
VI. Dietary and Coo 68. During the past year have you O No [GO TO QUESTION 7] O Yes, but not regularly [GO 7] O Yes, fairly regularly (at least O 69. If you've taken vitamins regularly	u taken any vi 2] TO QUESTION (once a week)	tamins	s or m	ineral	supp	lemen	ts?					[a	takes	up]
				A. Nu	mber	of Tab	lets °			В. 1	For Ho	w Man	ıy Yea	ırs?
Vitamin Type		None	1-3 Per Wk	4–6 Per Wk	1 Per Day	2 Per Day	3 Per Day	4 Per Day	5+ Per Day	Less Than 1 Yr	1–2 Yrs	3–5 Yrs	6–9 Yrs	10+ Yrs
b. Therapeutic or Theragran [anun type	nvit1 / ayrsvit1] nvit2 / ayrsvit2] nvit3 / ayrsvit3]	0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
e. Vitamin E [anumsu f. B-carotene [anumsu g. Vitamin C [anumsu h. Calcium or Tums [anumsu i. Iron [anumsu	p1 / ayrsupp1] p2 / ayrsupp2] p3 / ayrsupp3] p4 / ayrsupp4] p5 / ayrsupp5] p6 / ayrsupp6]	0 0 0 0	0000000	0000000	0000000	0000000	0000000	0000000	0000000	000000	0000000	000000	0000000	000000
70. If you took Vitamin C, how r 100 250 500 1000 or more Don't know 71. If you took Vitamin E, how m 100 200 400 1000 or more		-				ke?		,	,	,	,		vitem <u>ç</u>	-

67. In the growing season, how many hours a day do you generally spend in the sun?

The next set of questions refer to your cooking and eating practices over the past year.

72. How often have you eaten the following meats during the past 12 months? Mark the column to show how often, on average, you ate the following foods during *the past year*. Be sure to include foods that were eaten away from home such as in restaurants, cafeterias, at friends' homes, or at work. If you rarely or never eat a food, mark "Never, or less than once a month."

		How Often H	ave You E	aten These	Foods Du	ring The La	st 12 Month	ıs?		
	Type of Food	Never, or Less than Once a Month	Once a Month	2–3 Times a Month	Once a Week	Twice a Week	3–4 Times a Week	5–6 Times a Week	Once a Day	Twice a Day or More
a.	Hamburger, cheeseburger [afoodty1]	0	0	0	0	0	0	0	0	0
b.	Beef-steaks [afoodty2]	0	0	0	0	0	0	0	0	0
c.	Chicken [afoodty3]	0	0	0	0	0	0	0	0	0
d.	Pork-chops or ham steak [afoodty4]	0	0	0	0	0	0	0	0	0
e.	Bacon or breakfast sausage [afoodty5]	0	0	0	0	0	0	0	0	0
74. 75.	O Grilled [astc When you eat steak, ho O Don't eat steak O Rare O Medium rare O Medium When you eat hamburge	·	0 0 0	Medium v Well done Very well Don't know	vell done w	ally cooked	1? (Mark o	nly one or t	iwo.)	[asteaten]
	O Don't eat hamburgers (O Pan friedO Grilled	or cheeseburg	gers) [abur [abur [abur	gck2]		roiled [abu [aburgck5]		O Don't k	cnow [ab	urgck6]
76.	When you eat hamburg O Don't eat hamburgers O Rare O Medium rare O Medium		gers)), how do y Medium Well do Very wo	n well one ell done	lly eat then	1? (Mark oi	nly one.)		[abureatn
77.	When you eat chicken, O Don't eat chicken O Pan fried O Deep fried O Roasted or baked	how do you	(tit? (Mark O Grilled O Broiled O Stewed	or boiled	2.)				[achkneat]

	O Don't eat pork chops Baked O Grilled O Don't know	
79.	When you eat bacon or sausage, how do youusually eat it? (Mark only one.) O Don't eat bacon or sausage O Just until done O Don't know O Well-done, crisp	[abacneat]
80.	How often do you eat meat which has been well-browned on the outside by pan-frying or oven broiling? ○ Never ○ Rarely ○ Sometimes ○ Often	[afriedmt]
81.	When do you eat foods that have been grilled (cooked over coals, open fire or ceramic briquets)? ○ All year round ○ Mostly in the summer ○ Never [GO TO QUESTION 84]	[agrillmt]
82.	How often do you eat grilled or barbecued meat (including beef, pork, chicken, or fish)? Less than once a month 1-3 times a week 4-5 times a week Once a week Almost every day	[agrilfrq]
83.	How often do you eat meat which has been charred/blackened by grilling or barbecuing? ○ Never ○ Rarely ○ Sometimes ○ Often	[acharmt]
	Before age 18, did you live at least half your life on a farm? O Yes O No About how much did you weigh when you were age 202 (For famale applications, don't consider a time when	[alivfarm]
~ ~ •	About how much did you weigh when you were age 20? (For female applicators, don't consider a time when have been pregnant.)	n you may [awgtat20]
<i>52</i> •	· · · · · · · · · · · · · · · · · · ·	

VIII. Medical History

Be sure to answer "No" or "Yes" for each item. If you answer "Yes," be sure to complete Column B.

	Condition			Α.	How old w		3. IF YES hen the doc	tor first	told you?
	Containon		No	Yes		Younger than 20	20-39	40-59	60 or older
a. F	Rheumatoid arthritis	[a_medcond49]	0	0 °	[a_agecond49]	0	0	0	0
b. S	Stroke	[a_medcond53]	0	0 °	[a_agecond53]	0	0	0	0
c. N	Myocardial infarction (heart attack)	[a_medcond39]	0	0 °	[a_agecond39]	0	0	0	0
d. A	Arrhythmia (irregular heart beat)	[a_medcond4]	0	0 °	[a_agecond4]	0	0	0	0
e. A	Angina (chest pain)	[a_medcond3]	0	0 °	[a_agecond3]	0	0	0	0
	High blood pressure requiring medication	[a_medcond26]	0	0 °	[a_agecond26]	0	0	0	0
	Diabetes (sugar) (other than while pregnant	[a_medcond16]	0	0 °	[a_agecond16]	0	0	Ο	0
h. A	Asthma or reactive lung disease	[a_medcond6]	0	0 °	[a_agecond6]	0	0	0	0
i. I	Farmer's lung disease	[a_medcond20]	0	0 °	[a_agecond20]	0	0	0	0
j. (Chronic bronchitis	[a_medcond9]	0	0 °	[a_agecond9]	0	0	0	0
k. I	Emphysema	[a_medcond18]	0	0 °	[a_agecond18]	0	0	0	0
1. I	Hay fever	[a_medcond23]	0	0 °	[a_agecond23]	0	0	0	0
m. F	Pneumonia (viral or bacterial)	[a_medcond47]	0	0 °	[a_agecond47]	0	0	0	0
n. (Cataracts	[a_medcond8]	0	0 °	[a_agecond8]	0	0	0	0
o. (Glaucoma	[a_medcond21]	0	0 °	[a_agecond21]	0	0	0	0
p. I	Detached retina	[a_medcond15]	0	0 °	[a_agecond15]	0	0	0	0
q. I	Retinal or macular degeneration	[a_medcond48]	0	0 °	[a_agecond48]	0	0	0	0
r. (Goiter	[a_medcond22]	0	0 °	[a_agecond22]	0	0	0	0
	Thyrotoxicosis/Grave's disease (excesthyroid hormone)	ss [a_medcond54]	0	0 °	[a_agecond54]	0	0	0	0
t. (Other thyroid disease	[a_medcond55]	0	0 °	[a_agecond55]	0	0	0	0
	Kidney failure requiring dialysis or transplant	[a_medcond30]	0	0 °	[a_agecond30]	0	0	0	0
	Chronic kidney infections or byelonephritis	[a_medcond11]	0	0 °	[a_agecond11]	0	0	0	0

87. H	las a <i>DOCTOR</i> ever told you	that you had (b	een di	agnosed	with) (continu	ued)								
	Condition			Α.	B. IF YES How old were you when the doctor first told you?									
	Condition		No	Yes		Younger than 20	20-39	40-59	60 or older					
w.	Kidney stones	[a_medcond31]	0	0 °	[a_agecond31]	0	0	0	0					
X.	Bright's disease, nephritis, or nephrosis	[a_medcond7]	0	0 °	[a_agecond7]	0	0	0	0					
y.	Other kidney disease	[a_medcond32]	0	0 °	[a_agecond32]	0	0	0	0					
z.	Shingles	[a_medcond51]	0	0 °	[a_agecond51]	0	0	0	0					
aa.	Eczema	[a_medcond17]	0	0 °	[a_agecond17]	0	0	0	0					
bb.	Mononucleosis or "mono"	[a_medcond37]	0	0 °	[a_agecond37]	0	0	0	0					
cc.	Scleroderma or sarcoidosis	[a_medcond50]	0	0 °	[a_agecond50]	0	0	0	0					
dd.	Lupus	[a_medcond35]	0	0 °	[a_agecond35]	0	0	0	0					
ee.	Ulcerative colitis or Crohn's disease	[a_medcond57]	0	0 °	[a_agecond57]	0	0	0	0					
ff.	Parkinson's disease	[a_medcond44]	0	0 °	[a_agecond44]	0	0	0	0					
gg.	Amyotrophic lateral sclerosis (Al motor neuron disease, or Lou Gehrig's disease	LS), [a_medcond2]	0	0 °	[a_agecond2]	0	0	0	0					
hh.	Epilepsy or seizures (not related high fever)	to [a_medcond19]	0	0 °	[a_agecond19]	0	0	0	0					
ii.	Multiple sclerosis	[a_medcond38]	0	0 °	[a_agecond38]	0	0	0	0					
jj.	Depression requiring medication shock therapy	or [a_medcond14]	0	0 °	[a_agecond14]	0	0	0	0					
kk.	Pesticide poisoning	[a_medcond45]	0	0 °	[a_agecond45]	0	0	0	0					
11.	Solvent poisoning	[a_medcond52]	0	0 °	[a_agecond52]	0	0	0	0					
mm.	Lead poisoning	[a_medcond33]	0	0 °	[a_agecond33]	0	0	0	0					
nn.	Head injury requiring medical attention	[a_medcond24]	0	0 °	[a_agecond24]	0	0	0	0					
00.	Injury from farm machinery requ medical treatment (excluding hea injury)		0	0 °	[a_agecond28]	0	0	0	0					

Please be sure to answer Column A for each item. For any you answered "Yes" be sure to complete Columns B and C and D.

88.	88. During the past 12 months, have you had?			A.	3		many	B. episodes l last 12 m		We sympto after	C. re the ms worse smelling al odors?	symp worse workir	e the otoms
			No	Yes	One	Two	3-6	7-12	More than 12	No	Yes	No	Yes
a.	a. Stuffy, itchy, or runny nose [aallerg1]		0	0 °	0	0	(anui	O malg1]	0	(awa	Oaftch1]	(awaf	O hay1]
b.	Watery, itchy eyes	[aallerg2]	0	0 °	0	0	(anu	O nalg2]	0	O [awa	oftch2]	O [awaf	O hav2l
c.	A cold	[aallerg3]	0	0 °	0	0	0	o nalg3]	0	0	oftch3]	0	O hay3]
d.	Sinusitis or sinus problems	[aallerg4]	0	0 °	0	0	0	nalgoj nalg4]	0	0	Oaftch4]	0	hay4]
e.	Flu	[aallerg5]	0	0 °	0	0	0	O nalg5]	0			,	y -2
f.	Pneumonia	[aallerg6]	0	0 °	0	0	0	O malg6]	0				

89.	Have you ever taken the following types of aspirin or other pain medication (over-the-counter or prescription) for any reason <u>nearly every day for as long as a month</u> ?		A.	`	er have	C. Do you currently take this medication daily (or nearly every day)?			
		No	Yes	Less than 1 year	1-4 years	5-9 years	10 or more years	No	Yes
a.	Aspirin or Buffered Aspirin (generic or any brand name, e.g. Anacin, Bayer, Bufferin, Midol) [amedic1]	0	0 °	0	(amed	O cyr1]	0	O [ame	O dnow1]
b.	Advil, Nuprin, Motrin IB (ibuprofen) [amedic2]	0	0 °	0	(amedo	O	0	O	O dnow2]
c.	Prescription anti-inflammatory drugs like Motrin, Feldene, Voltarin, Clinoril, or Indocin [amedic3]	0	0 °	0	amedo	0	0	0	O dnow3]
d.	Tylenol or acetaminophen or other aspirin-free pain relievers (cold or sinus medicine, Anacin-3, Dristan AF, Comtrex, etc.) [amedic4]	0	0 °	0	(amed	O cyr4]	0	O [ame	O dnow4]
e.	BC, Goodys, Empirin, or ADC powders or tablets - BEFORE 1980 [amedic5]	0	0 °	0	(amedo	O cyr5]	0	() [ame	O dnow5]
f.	BC, Goodys, Empirin, or ADC powders or tablets - AFTER 1980 [amedic6]	0	0 °	0	amedo	0	0	0	O dnow6]
g.	Excedrin or Vanquish [amedic7]	0	0 °	0	(amedo	0	0	0	O dnow7]

90.	Approximately how often during the last 12 more you experienced the following?	nths have	Never	One a year	Once a month	Once a week	More than once a week
a.	Dizziness	[aphyco1]	0	0	0	0	0
b.	Feeling tense, anxious, or nervous	[aphyco2]	0	0	0	0	0
c.	Nausea/vomiting	[aphyco3]	0	0	0	0	0
d.	Feeling tired, sleepy, or low energy most of the day	[aphyco4]	0	0	0	0	0
e.	Sweating a lot more than usual	[aphyco5]	0	0	0	0	0
f.	Difficulty seeing at night	[aphyco6]	0	0	0	0	0
g.	Being absentminded, forgetful, or confused	[aphyco7]	0	0	0	0	0
h.	Headache	[aphyco8]	0	0	0	0	0
i.	Loss of appetite	[aphyco9]	0	0	0	0	0
j.	Fast heart rate	[aphyco10]	0	0	0	0	0
k.	Difficulty with balance	[aphyco11]	0	0	0	0	0
1.	Blurred vision or double vision	[aphyco12]	0	0	0	0	0
m.	Difficulty concentrating	[aphyco13]	0	0	0	0	0
n.	Numbness or pins-and-needles in your hands or feet	[aphyco14]	0	0	0	0	0
0.	Momentary loss of consciousness	[aphyco15]	0	0	0	0	0
p.	Feeling excessively irritable or angry	[aphyco16]	0	0	0	0	0
q.	Shaking or trembling of your hands	[aphyco17]	0	0	0	0	0
r.	Difficulty falling asleep or staying asleep	[aphyco18]	0	0	0	0	0
S.	Difficulty speaking	[aphyco19]	0	0	0	0	0
t.	Weakness in your arms or legs	[aphyco20]	0	0	0	0	0
u.	Changes in your sense of smell or taste	[aphyco21]	0	0	0	0	0
v.	Feeling depressed, indifferent, or withdrawn	[aphyco22]	0	0	0	0	0
w.	Twitches, jerks, or involuntary movements of your arms or legs	[aphyco23]	0	0	0	0	0

91.	Oo any of these symptoms seem to get worse after smelling chemical odors like those from paint, perfume, exhaust or new cars? [awafcodr] No Yes
92.	Oo you have shortness of breath when hurrying on level ground or walking up a slight hill? No Yes [ashrtbrt]
93.	How many episodes of wheezing or whistling in your chest have you had in the past 12 months? No wheezing or whistling 1–2 episodes 3–6 episodes 7–12 episodes More than 12 episodes
94.	Ouring the past 12 months, how many times have you gone to the hospital emergency room or doctor's office for mepisode of wheezing or whistling? [anumwhez] None 1-2 visits 3-6 visits 7-12 visits More than 12 visits
95.	Ouring which months of the year are your breathing problems most severe? (Please mark all that apply)
	No breathing problems [abrpro1] All months [abrpro2] Jan [abrpro3]
96.	Has a doctor ever told you that you are legally blind in either eye? No [GO TO QUESTION 98]
97.	How old were you when a doctor first told you that you were legally blind in either eye? Younger than 20 years old 20 to 39 years old 40 to 59 years old 60 years old or older
98.	Do you use glasses or contact lenses to correct nearsightedness (to help you see far away)? No [GO TO QUESTION 100]
99.	How old were you when you began wearing glasses or contact lenses for nearsightedness? Younger than 20 years old 20 to 39 years old 40 to 59 years old 60 years old or older

lease answer the following question, whether or not you we	ar glass	es or con	act lenses.	
Without wearing glasses or contact lenses, can you see well enough to	No	Yes		
a. Recognize a friend from across the street? [aseewel1]	0	0		
b. Recognize a friend from across a room? [aseewel2]	0	0		
c. Recognize a friend who is at arm's length away? [aseewel3]	0	0		
d. Read ordinary newspaper print? [aseewel4]	0	0		
e. Read large print such as newspaper headlines?[aseewel5]	0	0		
e. Read large print such as newspaper headlines?[aseewel5]	0	0		

[afarsght]

100. Do you use glasses or contact lenses to correct farsightedness (to help you see close up)?

O No [GO TO QUESTION 102]

O Yes

THEN GO TO FEMALE AND FAMILY HEALTH SECTION]

LUT.	Plea	ise w	rite	your	nan	ne, b	irth	date,	, and	tele	phor	ne nu	ımbeı	below:												
																									8	J ₁ S
Last	Nam	ne			1			ī						Firs	t Nai	me	٦				1		1	MI	ı	7
		_			_												_				_					
Aon Birt	h n Da	te	Day	7		Year	•								a Cod one N	le Iumb		Telep	hone							
l 05.	rese and	arch vita	iers (l rec	to loc ords	ate y	you i ollow	n the	e futi studi	ure i les in	f the the	y arc futu	e una re. I	able to Furnis	ow. The locate shing yo y your r	you ur S	at yo ocial	ur ho Secu	ome a	addro Num	ess, a	and t	to se	arch			
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Stree	Nam	hip t	to you			lepho										ame			ZIP					MI	8	J ₁ S
Rela	Name tions	ute l	Box	1	Te	lepho		mme	ents?						st Na	St	ate	explai						MI	8	J ₁ S
Rela	Nam tions et/Ro Cod	hip t ute l	Box	any	Te	lepho		mme	ents?					Fir	st Na	St	ate	xxplai						MI	8	J ₁ S

Thank You For Taking The Time To Complete This Questionnaire.

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